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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,547	06/10/2005	Natalie Speciale	47966.12.1	1755

22859 7590 05/02/2006

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EXAMINER

MACARTHUR, SYLVIA

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/538,547

Applicant(s)

SPECIALE ET AL.

Examiner

Sylvia R. MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 21, 23, 24, 28-33, and 35-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Aschner et al (US 6,006,226).

Re claim 21: Aschner et al teaches an RTP system with gas driven rotating substrate comprising a stationary base element (fixed base) and a moveable support (rotating wafer holder), the support is rotatable above the element about a stationary axis as is defined between the element and the support, at least one duct is provided for the admission of at least one gas-flow to the chamber in order to raise the support, see Fig. 4, 5, and 7.

Re claims 23 and 24: The gas outlets are illustrated in Fig. 13a and 14.

Re claims 28 and 29: The channels are illustrated in Figs. 4, 5, and 7

Re claim 30: The depth of one of the channels reduces along the extent, Fig. 19b.

Regarding claims 31-33: See Fig. 4, 5, and 7

Re claim 35: A pin/hole arrangement is illustrated in Figs. 4, 5, and 7 and discussed in Fig. 4 lines 20-24.

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Re claim 36: See claims 4,5, and 7.

Re claims 37-40: These claims are matters of an intended use and do not provide further structural limitation and thus the apparatus of Aschner is inherently capable of this intended use..

3. Claims 21, 22, 25, 27-29, and 32-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Burk, Jr.

Re claim 21: Burk, Jr. teaches a susceptor wherein gas paasageways 74 and 76 cause the wafer holders 64 to levitate and rotate above stationary element 60.

Re claim 22: The individual chambers are closed whether the holder is in motion are stationary, see Figs. 7, 7A, and 7B.

Re claims 25 and 27: The duct outlet 76 is parallel to the axis of rotation.

Re claim 28: See col. 4 lines 10-26.

Re claim 29: Elements 74 and 76 comprise a plurality of channels.

Re claims 32, 33: Fig.3 illustrates that eh chamber and channels are formed entirely in the element.

Re claim 34: Figs. 3/5 teaches a circular recess.

Re claim 35: Central post 78 is a pin and the underlying hole anticipate a pin/hole arrangement, see col. 3 lines 27-34.

Re claim 36: The system is symmetrical according to the Figures.

Re claims 37-40: These claims are matters of an intended use and do not provide further structural limitation and thus the apparatus of Burk, Jr is inherently capable of this intended use..

4. Claims 21, 22, 25, 27, 28, 31-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Paisley et al (US 2002/0090454).

Re claim 21: Paisley et al teaches a gas driven rotation apparatus wherein a holder 130 is rotated about a pin or spindle 140 while 150 is a stationary base element. According to [0046] the plater is lifted .

Re claim 22: The chamber of Paisley et al is closed when the support is stationary or in motion, see Fig. 8 and 9.

Re claims 25, 27, 28: Fig. 9 illustrates an outlet 170 is parallel to axis of rotation of the support.

Re claims 31-33: Fig. 6 and 7 illustrates that the chamber has a cylindrical shape and are substantially straight and tangential to the profile of the chamber. The chamber is formed entirely in the element and the channel is formed in the element.

Re claim 34: A circular recess is illustrated in Fig. 7.

Re claim 35: The pin/hole pair is illustrated in Fig. 1 where 140 is the pin that fits into 150 and spindle recess 133.

Re claim 36: See the figures.

Re claims 37-40: These claims are matters of an intended use and do not provide further structural limitation and thus the apparatus of Paisley, et al is inherently capable of this intended use..

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paisley et al.

The teachings of Paisley et al are discussed above.

Paisley et al fails to teach a plurality of gas outlets. However, the duplication of parts was held to have been obvious according to In re Harza, 274 F. 2d 669, 124 USPQ 378 (CCPA 1960). The motivation to provide a plurality of outlets is that the wafer support can be levitated and rotated uniformly. Thus, it would have been obvious for one of ordinary skill in the art to provide a plurality of gas outlets to levitate and rotate the wafer.

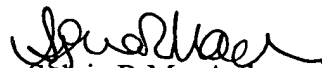
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438.

The examiner can normally be reached on M-F during the hours of 8:30 a.m. and 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sylvia R MacArthur
Patent Examiner
Art Unit 1763

April 28, 2006